CLAIMS

1.A sealable container comprising:

a tubular member having an open end and an inner wall:

a sealing cap including a base and a cup shaped member, said sealing cap coupled to said open end of said tubular member, said sealing cap including means for securing said sealing cap to said tubular member; and

a locking cap coupled to said sealing cap, said locking cap being configured for being received within said cup shaped member when said cup shaped member is positioned in said tubular member and said portion of said locking cap is position within said cup shaped member.

2. The sealable container of claim 1 further including a filter integral with said cup shaped member.
3. The sealable container of claim 2 wherein said filter includes a microporous filter membrane.
4. The sealable container of claim 3 wherein said filter membrane is created with coatings and is charged with specific means for particulate retention chosen from the group including ionic, covalent, electrostatic, hydrophobic, oleopholic and hydrophilic means.
5. The sealable container of claim 3 wherein said filter membrane has coatings comprising at least one agent having specific bactericidal, fungicidal and virvidal activities or substances having general disinfecting activity.
6. The sealable container of claim 3 wherein said filter membrane has a coating impregnated with reactive adhesive for binding specific particulates in a gas, aerosol or fluid flowing through the device.
7. The sealable container of claim 3 wherein said microporous filter membrane is pre-treated with a pre-determined amount of chemicals with means to mix with fluid as it is passing through the said filter membrane.
8. The sealable container of claim 3 wherein said cup shaped member is filled with fluid that will pass through said microporous filter membrane upon centrifugation.
9. The sealable container of claim 2 wherein said filter includes a woven monofilament screen.
10. The sealable container of claim 2 wherein said filter includes a porous plastic filter.

11. The sealable container of claim 2 wherein said filter includes a plurality of openings having predetermined size.
12. The sealable container of claim 2 wherein said cup shaped member is filled with chemicals such as reagents, oxygen scavenging pellets, moisture absorbing pellets or reactants.
13. The sealable container of claim 2 wherein said cup shaped member can be used as a compartment for storage of tissue samples.
14. The sealable container of claim 1 wherein said locking cap has a top section engagable with a portion of said sealing cap, said top portion providing access into said sealing cap without breaking the seal between said sealing cap and said tubular member.
15. The container of claim 1, wherein said cup shaped member includes at least one pre-determined vent channel with means for allowing gas diffusion into and out of said tubular member and including means for trapping fluid.
16. The container of claim 1 wherein said locking cap includes at least one pre-determined vent channel with means for allowing gas diffusion into and out of said tubular member, including means for trapping fluid.
17. The container of claim 2 wherein said sealing cap and said locking cap are each coupled to said tubular member by means of a flexible hinge.
18. sealable device comprising:

a tubular member having an open end and an inner wall;

a wiping cap including a base and a cup shaped member, said wiping cap coupled to said open end of said tubular member, said cup shaped member comprising a conical resilient wiper section, said wiper section getting smaller in the direction away from said open end and being configured to include at least one helically formed slot forming a wiper finger, said wiper finger being adapted to be resiliently held against an element inserted therethrough so as to remove outside surface fluid when said element is withdrawn axially through said wiper opening, said wiping cap including means for securing wiping cap to said tubular member.

19. The device of claim 18 wherein said means for securing said wiping cap to said tubular member includes threads formed on the outer wall of said tubular member and mating threads formed on the threaded skirt attached to and depending from the periphery of said base of said wiping cap.

20. The device of claim 18 wherein said wiping cap between said base and said wiper section of said cup shaped member includes a frustum section adapted for mating with said tubular member so as to form a seal therebetween.

21. The device of claim 18 wherein said wiping cap is configured to receive a locking cap within said cup shaped member so as to form a seal therebetween and sandwich said wiping cap between said locking cap and said tubular member.

22. The device of claim 18 wherein said locking cap is hingedly secure to said wiping cap with a top section engagable with a portion of said sealing cap, said top portion providing access into said wiping cap.

23. The device of claim18 wherein said wiping cap and said locking cap are each coupled to said tubular member by means of a flexible member.

24.A sealable container comprising:

a tubular member having an open end with an inner wall and outer wall including fastening means; and

a sealing cap having a solid top with a depending annular wall adapted for mating with said tubular member in the vicinity of said open end and forming a seal therewith, a resilient skirt also depending from said top with fastening means for fastening said sealing cap to said tubular member at said fastening means,

a flexible tether integrally connected to said sealing cap and to said tubular member, said tether forming a slide ring which has an inner diameter approximately the same diameter as said outer wall of said tubular member with at least one thin frangible bridge separated by spaces extending inward from said ring to said tubular member, said frangible means when broken permits said slide ring to rotate about said outer wall.

25. The sealable container of claim 24 wherein, the said slide ring is captured by at least one annular ring on the outside surface of said tubular member for maintaining said slide ring on said outer wall.

26. The sealable container of claim 24 wherein said fastening means includes sawtooth threads formed on the outer wall of said tubular member adapted to engage with internal sawtooth threads formed on the said resilient skirt of said sealing cap whereby attachment is accomplished by direct axial downward force relative to said container.

27. The sealable container of claim 24 wherein said tubular member may be blowmolded into a larger container form.

28. The sealable container of claim 24 wherein said tether has tamper evident frangible means detachably connecting said ring to said tubular member, whereby, said cap cannot be unscrewed from said tubular member without separating said tamper evident frangible means from said tether.

29. The sealable container of claim 24 wherein tamper evidencing means being shaped and positioned to engage when said cap skirt is seated onto said open end of tubular member, whereby said cap cannot be removed from said open end without fracturing said frangible tamper evidence means.

30. The sealable container of claim 24 wherein said tether has tamper evident frangible means detachably connecting said slide ring to said sealing cap, whereby, said cap cannot be unscrewed from said tubular member without separating said tamper evident frangible means from said tether.

31. The sealable container of claim 26 wherein tamper evident means being shaped and positioned to engage when tamper evident tethered skirt is seated onto said open end of tubular member, whereby, said skirt integrally molded with said sealing cap cannot be removed from said open end without fracturing said frangible tamper evident means from said tether.

32. A sealable device comprising in combination, a fitment, a cap and a tether.

a fitment comprising an annular flange having a hole, a tubular member having an outer wall with an open end upstanding from said flange surrounding said hole with fastening means on said tubular member, and

a sealing cap having a solid top with a resilient skirt depending from said top with fastening means for fastening said cap to said tubular member in the vicinity of said open end and forming a seal therewith, and

a flexible tether integrally connected to said fitment and to said sealing cap forming a slide ring which has a inner diameter approximately the same diameter as outer wall of said tubular member with at least one thin frangible means separated by spaces extending inward from said slide ring to said tubular member, said frangible means when broken permitting said slide ring to rotate about said outer wall.

33. The device of claim 32 wherein said sealing cap is axially aligned directly over said fitment during molding of said combination whereby said cap and said fitment may be assembled together with said tether during said molding operation.

34. The sealable container of claim 32 wherein said fastening means includes sawtooth threads formed on said outer wall of said tubular member adapted to engage with internal sawtooth threads formed on said resilient skirt of said sealing cap whereby attachment is accomplished by direct axial downward force between said sealing cap and said tubular member.
35. The sealable container of claim 32 wherein the means of fastening includes sawtooth threads formed on the inner wall of said tubular member and external sawtooth threads formed on resilient skirt of said sealing cap whereby attachment is accomplished by direct axial downward force between said sealing cap and said tubular member.
36. The sealable container of claim 32 wherein said tether has tamper evident frangible means detachably connecting said slide ring to said tubular member, whereby, said cap cannot be unscrewed from said tubular member without separating tamper evident frangible means.
37. The sealable container of claim 32 wherein tamper evidencing means being shaped and positioned to engage when said sealingly cap skirt is seated onto said open end of tubular member, whereby said cap cannot be removed from said open end without fracturing said frangible tamper evidence means.
38. The sealable container of claim 32 wherein tamper evident means being shaped and positioned to engage when tamper evident tethered skirt is seated onto said open end of tubular member, whereby, said skirt integrally molded with said sealing cap cannot be removed from said open end without fracturing said frangible tamper evident means from said tether.
39. The device of claim 32 wherein a diaphragm wall extends across the inner diameter of said tubular member in the vicinity of said open end, said diaphragm having a frangible wall section about its circumference connecting it to said inner diameter including means for removal, said frangible wall section when broken permitting removal of said diaphragm thereby showing tamper evidence.
40. An improved filter device for use between a liquid handling pipetter and pipette tip said filter device comprising:

a tubular member having a proximal and distal ends with an inner wall and an outer wall, said inner wall being tapered so that the inside diameter of said tubular member is larger adjacent said proximal end, such tubular member is known as a pipette tip;

a filter device including a base and a cup shaped member extending from said base, said cup shaped member having an inner wall, an open end adjacent said base and a closed bottom end, said inner wall of said cup shaped member including a tubular section between said base and said bottom,

said tubular section having a frustoconical outer and inner wall surface, said outer wall surface being configured to mate with said tapered tubular member forming a seal therewith, the said inner wall surface being adapted to receive a tapered pipetter barrel (or the like) and configured to mate with said tapered pipetter barrel forming a seal therewith, said tubular section containing at least one pre-determined vent channel with means for allowing gas diffusion from tubular member through said vent channel and through at least one hole between said tubular section and into said cup shaped member and into said pipette barrel.

41. The device of claim 40 wherein said vent channel prohibits the flow of aerosols or fluids therethrough.

42. An improved needle device for use with a sealed container with septum, said needle device comprising:

a tubular member having proximal and distal ends, with an inner wall and an outer wall,

a needle having proximal and distal ends, with an inner wall and an outer wall with means for attachment of said needle to said inner wall of said tubular member in the vicinity of said distal end of said tubular member and forming a seal therewith,

a vent channel between said outer wall of said tubular member between said seal and said distal end of said tubular member defining a pre-determined vent channel with means for allowing gas diffusion from inside of said sealed container through said vent channel to outside of said sealed container through at least one pre-determined opening between said vent channel and said outer wall of tubular member when said needle device is inserted into said sealed container.

43. The device of claim 42 wherein said vent channel prohibits flow of aerosols or fluids therethrough.

44. The device of claim 42 wherein said outer wall of said tubular member has a flange below said at least one pre-determined opening with means to occlude puncture opening of said septum when needle device is inserted into said sealed container.

45. The device of claim 42 wherein said proximal end of tubular member contains means for attachment to luer-lok, slip tip or eccentric tip syringes with sealingly means.

46. The device of claim 42 wherein said needle device is integrally molded as part of a hypodermic syringe.